



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,987	08/20/2001	Harald Bock		8341

29177 7590 08/25/2006

BELL, BOYD & LLOYD, LLC  
P. O. BOX 1135  
CHICAGO, IL 60690-1135

EXAMINER
----------

BELLO, AGUSTIN

ART UNIT	PAPER NUMBER
----------	--------------

2613

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

54

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/913,987	BOCK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Agustin Bello	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 8 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 8 recites that the first and second add/drop modules are *each* separately insertable in a first or second fiber ring. However, this claim language is not supported by the specification. At best, the specification only supports the insertion of the entire protection module or working module.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 4 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Denkin (U.S. Patent No 6,266,168).

Regarding claim 4, Denkin teaches a network node (Figure 1) having optical add modules (reference numerals 10-1 and 10-2 in Figure 1) and drop modules (reference numeral 20-1 and 20-2 in Figure 1) for a bidirectional ring network (Figure 1) that has a working connection and a protection connection to other network nodes, comprising: a first drop module (reference numeral 20-1 in Figure 1) and a first add module (reference numeral 10-1 in Figure 1) positioned on a protection module (reference numerals 125 in Figure 1) for bidirectional protection connection arranged on a first board (reference numeral 125 in Figure 1); and a second drop module (reference numeral 20-2 in Figure 1) and a second add module (reference numeral 10-2 in Figure 1) positioned on a working module (reference numeral 150 in Figure 2) arranged on a second board (reference numeral 150 in Figure 2) for bidirectional working connection, wherein the second drop module (reference numeral 20-2 in Figure 1) and the first add module (reference numeral 10-1 in Figure 1) are positioned in series (e.g. via reference numeral 25, 26 in Figure 1) with respect to a second fiber ring (reference numerals 30, 31 in Figure 1) and wherein the first drop module (reference numeral 20-1 in Figure 1) and the second add module (reference numeral 10-2 in Figure 1) are positioned in series (e.g. via reference numeral 30, 31 in Figure 1) with respect to a first fiber ring (reference numerals 25, 26 in Figure 1).

Regarding claim 5, Denkin teaches the network node as claimed in Claim 4, wherein the first drop module (reference numeral 20-1 in Figure 1) and the first add module (reference numeral 10-1 in Figure 1) of the protection module and the second drop module (reference numeral 20-2 in Figure 1) and the second add module (reference numeral 10-2 in Figure 1) of the working module each have a line input and a line output such that the first drop module and the

Art Unit: 2613

first add module and the second drop module and second add module are each separately insertable in the first or second fiber ring (as seen in Figure 1).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (U.S. Patent No. 5,953,141).

Regarding claim 6, Liu teaches a network node (Figure 11) having optical add modules (reference numeral 1113 and 1114 in Figure 11) and drop modules (reference numeral 1111 and 1112 in Figure 11) for a unidirectional ring network (as noted in the abstract) which has a working connection (reference numeral O2 in Figure 11) and a protection connection (reference numeral O1 in Figure 11) to other network nodes, comprising: a first drop module (reference numeral 1112 in Figure 11) and a first add module (reference numeral 1114 in Figure 11) positioned on a protection module (reference numerals 1101, 1102, 1112, 1105, 1103, 1114, and 1104 in Figure 11) for protection connection; and a second drop module (reference numeral 1111 in Figure 11) and a second add module (reference numeral 1113 in Figure 11) positioned on a working module (reference numerals 1101, 1102, 1111, 1105, 1103, 1113, and 1104 in Figure 11) for working connection, wherein the first drop module (reference numeral 1112 in Figure 11) and the first add module (reference numeral 1114 in Figure 11) are inserted in series in a

Art Unit: 2613

second fiber ring (e.g. to  $O_1$ ) and the second drop module (reference numeral 1111 in Figure 11) and the second add module (reference numeral 1113 Figure 11) are inserted in series in a first fiber ring (e.g.  $I_1$  to  $O_2$ ) and wherein the add and drop function are arranged on two separate boards (see Figure 11). Liu differs from the claimed invention in that Liu fails to specifically teach arranging the first drop and first add on a first board or a second drop and a second add arranged on a second board. However, Liu, in a different embodiment teaches including an add and drop circuit on a single board (Figure 5). As such, one skilled in the art would have been motivated to modify the network node of Figure 11 to include the single board configuration taught in Figure 5 in order to reduce the overall size, cost and complexity of the node.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to employ the single board add/drop module as shown in Figure 5 in the node of Figure 11.

Regarding claim 7, Liu teaches the network node as claimed in Claim 6, wherein the first drop module and the first add module of the protection module (reference numerals 1112, 1114 in Figure 11) and the second drop module and the second add module of the working module (reference numeral 1111, 1113 in Figure 11) each have a line input (reference numeral  $I_1$ ,  $I_2$  in Figure 11) and a line output (reference numeral  $O_1$ ,  $O_2$  in Figure 0) such that the first drop module and the first add module and the second drop module and the second add module are each separately insertable in the first fiber ring or the second fiber ring (as seen in Figure 11).

7. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denkin (U.S. Patent No 6,266,168) or Liu (U.S. Patent No. 5,953,141).

Regarding claim 8, either Denkin or Liu teaches all of the limitations of the claimed invention as noted above, but differ from the claimed invention in that they fails to specifically

Art Unit: 2613

teach insertion and removal of the working and protection modules without interruption of the signal transmission between network nodes. However, both Denkin and Liu suggest modules that can be inserted and removed from the system in that they are disclosed as being in modular nodal form as claimed by the applicant. Furthermore, as noted by the applicant in the specification, this insertion and removal occurs after a completed protection switch has occurred. As such and given a completed protection switch in the system of Denkin and Liu, the removal of the modules would not produce an interruption of the signal transmission between network nodes. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to allow for the insertion and removal of the working and protection modules without interruption of the signal transmission between network nodes.

#### ***Response to Arguments***

8. Applicant's arguments filed 6/8/06 have been fully considered but they are not persuasive. The applicant argues that the amended claim language distinguishes the claimed invention from the cited prior art. However, the examiner disagrees.

In response to applicant's arguments, the recitation "inserting and dropping channels" and "protection connection" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Furthermore, the applicant contends that the recitation of the add/drop modules being “directly” in series distinguishes the claimed invention from Denkin. However, when given the broadest reasonable interpretation, Denkin also teaches that the add and drop modules are directly connected in series, albeit with other elements such as amplifiers forming part of the direct series connection. Apparently, the applicant is implying that the term “directly” precludes any elements between the add and drop modules. However, in the examiner’s interpretation, add and drop modules “directly” connected in series only requires that the add and drop modules be connected along the same straight path or line, with no intervening branches or parallel paths. Given this interpretation, Denkin continues to meet the limitations of the claimed invention. Next, the applicant argues that the multiplexing and demultiplexing cannot be compared with the claimed add and drop modules because they do not insert or drop channels. However, the examiner disagrees in that the multiplexing units of Denkin clearly provide an ingress point for channels into the ring while the demultiplexing units provide an egress point for channels from the ring.

Next, the applicant argues against the Liu reference by stating that the Liu can not provide a protection feature since both data streams have the same direction and appear to be transmitted over the same optical cable. However, if the applicant applies this line of reasoning to applicant’s own claims, then the applicant’s own claimed invention cannot provide effective protection functions since it too functions in a unidirectional manner on a unidirectional ring network. Furthermore, contrary to applicant’s assertion, Liu teaches a pair of fibers not a single fiber as argued.



Art Unit: 2613

9. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., implementing the add and drop on different boards) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

Art Unit: 2613

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

  
**AGUSTIN BELLO**  
**PRIMARY EXAMINER**